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MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT,  
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GQ, GW, ML, MR, NE, SN, TD, TG)

本国际公布:

— 包括国际检索报告。

所引用双字母代码和其它缩写符号, 请参考刊登在每期  
PCT公报期刊起始的“代码及缩写符号简要说明”。

(54) Title: PREPARATION OF SOLID AMMONIUM GLYPHOSATE USING ORGANIC SOLVENT IN  
EXTRACTION

(54) 发明名称: 用有机溶剂萃取制备固体草甘膦酸铵的方法

(57) Abstract: A method of producing ammonium glyphosate suitable for preparation of water-soluble solid preparation through a gas-liquid-solid reaction system and an extraction with organic solvent is that to a reactor with a stirrer, glyphosate acid and water are charged and then ammonia gas is fed for reaction. After the reaction, ammonium glyphosate aqueous is formed. Water-soluble organic solvent, such as methanol and/or ethanol and/or formal, is added to the aqueous to decrease the solvability of ammonium glyphosate in the system and separate out the ammonium glyphosate crystal. Solid ammonium glyphosate is obtained after filtrating or drying the crystal more. The organic solvent can be recycled and used repeatedly by distillation and the residual solution can be returned to react with ammonia gas or be prepare the ammonium glyphosate salt solution.

(57) 摘要

一种气—液—固三相反应及溶剂萃取制备可用于制备可溶性  
固体制剂的草甘膦酸铵的方法, 该方法为在带搅拌的反应器中加入  
草甘膦酸和水, 再通入氨气反应; 反应完全后成草甘膦酸铵水溶液,  
通过往反应液中加入能溶于水的有机溶剂如甲醇和/或乙醇和/或  
甲缩醛等的方法减少草甘膦酸铵在该体系中的溶解度, 从而结晶析  
出, 经抽滤或进一步进行烘干得固体草甘膦酸铵。其中加入体系的  
有机溶剂通过蒸馏得方法回收并重复使用, 分离溶剂后的残液可以  
返回进行通氨反应或配制草甘膦酸铵盐水剂。

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## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/CN03/00747

## A. CLASSIFICATION OF SUBJECT MATTER

C07F 9/38

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7 C07F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

CPRS EPODOC WPI PAJ CA CNKI

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CN1340508A(ZHEJIANG XINAN CHEMICAL INDUSTRIAL GROUP CO.,LTD.) 2002-03-20-----examples 1-17, and especially examples 2 and 17	1-12
A	CN1365254A(MONS) 2002-08-21 -----THE WHOLE DOCUMENTS	1-12
A	CN1365255A(MONS) 2002-08-21 -----THE WHOLE DOCUMENTS	1-12
A	CN1068008C(MONS) 2001-07-04 -----THE WHOLE DOCUMENTS	1-12
A	CN1192743A(MONS) 1998-09-09 -----THE WHOLE DOCUMENTS	1-12

☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

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**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

International application No.  
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